

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: FAIL-SAFE

Report Number: P560457

Luminaire Tested: FSR-12-2-LD4-2LO-40-UNV-81-88-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560457
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-5)
Test Lab: INNOVATION CENTER
Issue Date: 7/20/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-12-2-LD4-2LO-40-UNV-81-88-EDD
Description: 1X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

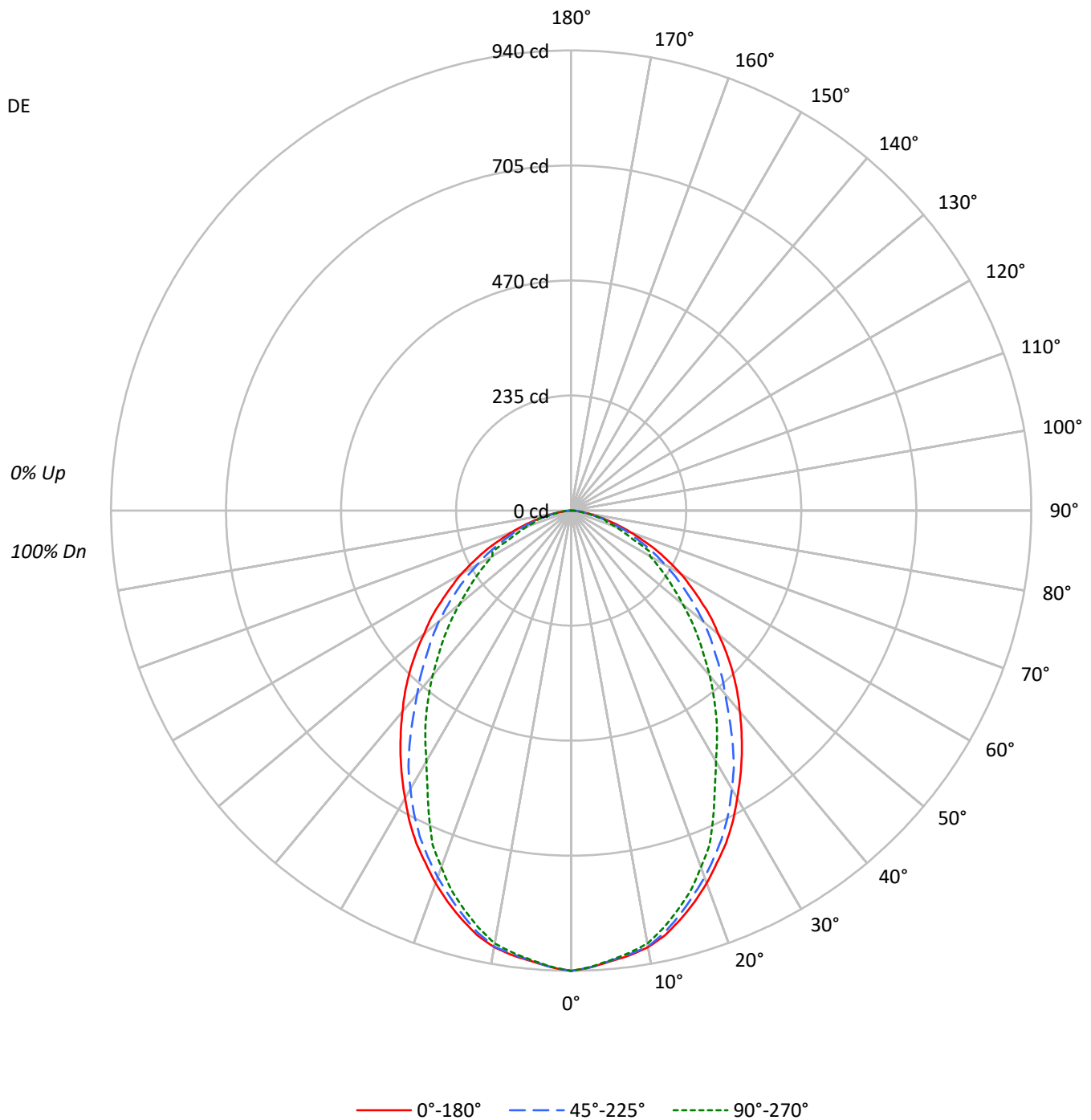
Lumens per Lamp: N/A
Luminaire Lumens: 1846.0 lumens
Efficiency: N/A
Efficacy: 78.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P560457
CATALOG NUMBER: FSR-12-2-LD4-2LO-40-UNV-81-88-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P560457

CATALOG NUMBER: FSR-12-2-LD4-2LO-40-UNV-81-88-EDD

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									20									
RC	80									70									50									30									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR																																														
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100													100															
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87													87															
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75													75															
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65													65															
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56													56															
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50													50															
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44													44															
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40													40															
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36													36															
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33													33															
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30													30															

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5061	5061	5061
5°	4992	4986	4980
10°	4949	4943	4907
15°	4815	4767	4700
20°	4639	4564	4439
25°	4448	4351	4080
30°	4215	4080	3675
35°	3993	3771	3400
40°	3765	3437	3093
45°	3550	3177	2796
50°	3286	2949	2494
55°	3040	2672	2234
60°	2785	2387	2001
65°	2450	2090	1771
70°	2019	1830	1506
75°	1605	1402	1470
80°	1079	1010	942
85°	673	803	939

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3550 cd/sqm



TEST NUMBER: P560457

CATALOG NUMBER: FSR-12-2-LD4-2LO-40-UNV-81-88-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.5	4.7
10°-20°	240.2	13.0
20°-30°	332.6	18.0
30°-40°	354.6	19.2
40°-50°	323.5	17.5
50°-60°	253.5	13.7
60°-70°	165.2	8.9
70°-80°	73.2	4.0
80°-90°	15.7	0.9
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	660.3	35.8
0°-40°	1015.0	55.0
0°-60°	1591.9	86.2
0°-90°	1846.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1846.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	940	940	940	940	940	
5°	924	923	923	922	922	88
15°	864	864	856	847	844	243
25°	749	745	733	707	687	344
35°	608	603	574	530	518	380
45°	466	457	417	383	367	359
55°	324	314	285	251	238	291
65°	192	182	164	167	139	190
75°	77	72	67	64	71	83
85°	11	12	13	14	15	15
90°	0	0	0	0	0	



TEST NUMBER: P560457

CATALOG NUMBER: FSR-12-2-LD4-2LO-40-UNV-81-88-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	940.3	940.3	940.3	940.3	940.3
2.5°	933.8	933.8	933.8	932.7	932.7
5°	924.0	922.9	922.9	921.8	921.8
7.5°	916.4	915.3	914.2	913.2	911.0
10°	905.5	905.5	904.5	899.0	897.9
12.5°	888.1	887.1	882.7	875.1	872.9
15°	864.2	864.2	855.5	846.8	843.6
17.5°	838.1	837.1	826.2	817.5	813.1
20°	809.9	807.7	796.8	782.7	775.1
22.5°	778.4	778.4	765.3	746.8	739.2
25°	749.0	744.7	732.7	706.6	687.0
27.5°	715.3	708.8	695.7	658.8	635.9
30°	678.3	675.1	656.6	608.8	591.4
32.5°	643.6	638.1	618.6	568.5	554.4
35°	607.7	603.3	574.0	530.5	517.5
37.5°	571.8	566.4	529.4	494.6	478.3
40°	535.9	529.4	489.2	457.7	440.3
42.5°	502.2	493.5	454.4	420.7	401.1
45°	466.4	456.6	417.4	382.7	367.4
47.5°	430.5	421.8	385.9	350.0	332.6
50°	392.4	384.8	352.2	316.3	297.9
52.5°	360.9	349.0	317.4	281.6	266.3
55°	324.0	314.2	284.8	251.1	238.1
57.5°	290.3	280.5	253.3	221.8	210.9
60°	258.7	244.6	221.8	194.6	185.9
62.5°	223.9	213.1	193.5	170.7	181.5
65°	192.4	181.5	164.1	167.4	139.1
67.5°	157.6	152.2	137.0	121.8	117.4
70°	128.3	121.8	116.3	100.0	95.7
72.5°	102.2	95.7	88.1	79.4	76.1
75°	77.2	71.7	67.4	64.1	70.7
77.5°	53.3	51.1	47.8	44.6	43.5
80°	34.8	33.7	32.6	31.5	30.4
82.5°	20.7	20.7	20.7	20.7	20.7
85°	10.9	12.0	13.0	14.1	15.2
87.5°	6.5	6.5	7.6	8.7	9.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)